

Abstract

The presently disclosed technology provides a method for forming a structure wherein an electrode, such as a gate, comprising a refractory metal is deposited. The method comprises depositing a plurality of electron sensitive resist layers on the substrate. Several of the resist layers used have properties that allow them to maintain their shape when exposed to the temperatures needed to deposit refractory metals. Using electron beam lithography, several regions are defined in the resist layers that will be removed to create a mold for a gate. By using resist layers which maintain their shape when exposed to the temperatures needed for evaporating a refractory metal, the mold defined in the resist layers will maintain its shape, thereby allowing a gate having a mushroom shape to be formed.